



Food and Drug Administration  
10903 New Hampshire Avenue  
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Silver Spring, MD 20993-0002

October 29, 2014

NuVasive, Incorporated  
Ms. Michelle Cheung  
Regulatory Affairs Associate  
7475 Lusk Boulevard  
San Diego, California 92121

Re: K142050

Trade/Device Name: NuVasive® CoRoent® Small Contoured Interbody System  
Regulation Number: 21 CFR 888.3080  
Regulation Name: Intervertebral body fusion device  
Regulatory Class: Class II  
Product Code: ODP  
Dated: October 1, 2014  
Received: October 2, 2014

Dear Ms. Cheung:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the [Federal Register](#).

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set

forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Division of Industry and Consumer Education at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address

<http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to

<http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm> for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Industry and Consumer Education at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address

<http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>.

Sincerely yours,

**Ronald P. Jean -S** for

Mark N. Melkerson  
Director  
Division of Orthopedic Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

## Indications for Use

510(k) Number (if known)

K142050

Device Name

NuVasive® CoRoent® Small Contoured Interbody System

### Indications for Use (Describe)

The NuVasive CoRoent Small Contoured Interbody System is indicated for intervertebral body fusion of the spine in skeletally mature patients. The CoRoent Small Contoured Interbody System is intended for use for anterior cervical interbody fusion in patients with cervical degenerative disc disease (DDD) at one level from C2 - T1. The System is intended to be used with supplemental fixation. The System is intended for use with autogenous and/or allogeneic bone graft comprised of cancellous, cortical and/or corticocancellous bone graft to facilitate fusion. The cervical devices are to be used in patients who have had at least six weeks of non-operative treatment.

Type of Use (Select one or both, as applicable)

☒ Prescription Use (Part 21 CFR 801 Subpart D)

☐ Over-The-Counter Use (21 CFR 801 Subpart C)

**PLEASE DO NOT WRITE BELOW THIS LINE – CONTINUE ON A SEPARATE PAGE IF NEEDED.**

### FOR FDA USE ONLY

Concurrence of Center for Devices and Radiological Health (CDRH) (Signature)

This section applies only to requirements of the Paperwork Reduction Act of 1995.

#### **\*DO NOT SEND YOUR COMPLETED FORM TO THE PRA STAFF EMAIL ADDRESS BELOW.\***

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## 510(k) Summary

In accordance with Title 21 of the Code of Federal Regulations, Part 807, and in particular 21 CFR §807.92, the following summary of information is provided:

### A. Submitted by:

Michelle Cheung  
Regulatory Affairs Associate  
NuVasive, Incorporated  
7475 Lusk Blvd.  
San Diego, California 92121  
Telephone: (858) 909-3360

Date Prepared: October 27, 2014

### B. Device Name

Trade or Proprietary Name:	NuVasive <sup>®</sup> CoRoent <sup>®</sup> Small Contoured Interbody System
Common or Usual Name:	Intervertebral Body Fusion Device
Classification Name:	Intervertebral Body Fusion Device with Bone Graft, Cervical

Device Class:	Class II
Classification:	21 CFR § 888.3080
Product Code:	ODP

### C. Predicate Devices

The subject *CoRoent Small Contoured Interbody System* is substantially equivalent to multiple predicate devices. *NuVasive CoRoent Small Interbody System* (K140003) serves as the primary predicate device; while *NuVasive CoRoent System* (K081611) and *Medtronic Anatomic PEEK Cervical Fusion System* (K130177) are referenced predicates.

### D. Device Description

The *NuVasive CoRoent Small Contoured Interbody System* is a hollow interbody cage manufactured from PEEK-Optima<sup>®</sup> LT-1 conforming to ASTM F2026. The implant contains a hollow core or graft aperture which allows for packing of autograft or allograft to help promote a solid fusion. Rows of teeth on the surface of each end of the device serve to grip the adjacent vertebrae to resist migration and expulsion of the device. The device includes marker pins composed of titanium alloy conforming to ASTM F136 and ISO 5832-3 or tantalum conforming to ASTM F560 or ISO 13782. The pins serve as radiopaque markers allowing the location and orientation of the device to be seen radiographically during and after the procedure for position confirmation.

The implants are available in flat or contoured endplates, and come in a variety of different shapes and sizes to suit the individual pathology and anatomical conditions of the patient. The subject device will be packaged and initially provided non-sterile, and is designed to be sterilized by the user before each use.

**E. Intended Use**

The NuVasive CoRoent Small Contoured Interbody System is indicated for intervertebral body fusion of the spine in skeletally mature patients. The CoRoent Small Contoured Interbody System is intended for use for anterior cervical interbody fusion in patients with cervical disc disease (DDD) at one level from C2 - T1. The System is intended to be used with supplemental fixation. The System is intended for use with autogenous and/or allogeneic bone graft comprised of cancellous, cortical, or corticocancellous bone graft to facilitate fusion. The cervical devices are to be used in patients who have had at least six weeks of non-operative treatment.

**F. Technological Characteristics**

The subject *CoRoent Small Contoured Interbody System* is substantially equivalent to other predicate devices cleared by the FDA for commercial distribution in the United States. The subject device was shown to have equivalent technological characteristics to its predicate devices through comparison in areas including design, intended use, material composition, and function. This device does not contain software or electrical equipment.

**G. Performance Data**

Nonclinical testing was performed to demonstrate that the subject *CoRoent Small Contoured Interbody System* is substantially equivalent to other predicate devices. The following testing and analysis was performed:

- Static and dynamic axial compression per ASTM F2077
- Static and dynamic torsion per ASTM F2077
- Subsidence Analysis per ASTM F2267
- Clinical literature review

A systemic literature analysis of published clinical data for cervical interbody fusion devices similar to the CoRoent Small Contoured Interbody System was provided as performance data to support the expanded Indications for Use. For treatment of cervical degenerative pathologies in anterior cervical interbody fusion surgical procedures, the published clinical outcomes demonstrate that the use of allogeneic cancellous, cortical and/or corticocancellous bone graft with the subject device poses no new risks to patients.

**H. Conclusions**

Based on the indications for use, technological characteristics, clinical literature analysis, and comparison to predicate devices, the subject *CoRoent Small Contoured Interbody System* has been shown to be substantially equivalent to legally marketed predicate devices for its intended use.